THE CLINICAL COURSE OF FORTY-SEVEN CASES OF CARCINOMA OF THE UTERUS SUBSEQUENT TO HYSTERECTOMY.

By W. W. Russell, M. D., *Associate in Gynecology.*

(*Read before the Johns Hopkins Medical Society, November* 4, 1895.)

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The doubts which have existed as to the ultimate value of complete extirpation of the uterus for carcinomatous growths can with certainty be set aside. From the statistical reports of many operators we are now justified in claiming the possibility of cure in a definite number of cases, and in others relief from distressing symptoms for months and even years, by removal of the uterus. We obtain then by this operation either a cure or a palliative effect, very often anticipating a cure where we obtain only cessation for a variable period of the local discharges, hemorrhages and pain.

It is commonly accepted that these patients usually do not live over two years after the appearance of the first local signs. If we are able then to free them from this terrible affliction for a longer time, even though recurrence does result in the end, are we not justified in the procedure? The indication for operation is to obtain a cure, although ultimately there may be only temporary relief.

The cases which I report clearly illustrate this fact, as sixteen of the twenty-one cases still living have passed the limit of two years and are enjoying good health—a period of exemption amply justifying the operation.

The following forty-seven cases of hysterectomy for carcinoma of the uterus include all those operated upon by Dr. Kelly and myself since the opening of the Gynecological wards in October, 1889, and in Dr. Kelly's private practice up to October, 1895, giving a time limit of from one to five years.

Many of these cases we have seen personally within the past three months, and where they lived at a distance our information has been obtained by writing to the local consultant or to the patients themselves.

Vaginal hysterectomy was performed in forty cases, abdominal in four, and the combined operation in three cases.

Grouping them together the results are as follows:

Death from primary effect of operation.....	5 = 10	per cent.
Patients still living	21 = 44	"
Patients died with recurrence	16 = 34	"
Patients not heard from	4 = 8	"
Died from heart lesion.....	1 = 2	"

Three of the deaths immediately following the operation were due to peritonitis and two to ligation of the ureters.

Recurrence and death took place in the sixteen cases within eighteen months. The prognosis in eight of these at the time of operation was unfavorable.

One patient of the twenty-one still living was operated upon nearly five years ago for extensive disease springing from the cervix. She presented herself in perfect health about every six months for examination, but we were never able to find any return of the trouble locally. About sixteen months ago there appeared in the left side of her neck above the clavicle a nodule, to which she called our attention. Since then other glands in this region, on the opposite side of the neck and in the axillæ, have become similarly affected, some of which have broken down and discharged externally. She is at present in a critical condition. As her home is at a considerable distance, we are compelled to accept this as a metastatic manifestation.

Two cases died within four months after the uterus was removed. One had at the time of operation such extensive infiltration on either side of the cervix that the case was considered hopeless. The uterus in the second case was found during the operation to be converted into a friable carcinomatous mass adherent in every direction to the bowels, rendering complete enucleation impossible.

Carcinoma of the breast developed and was removed in two cases several months after the uterus was extirpated. One of

these died of a pre-existing heart lesion without any evidence of a local return, and the other is at present also free from any pelvic trouble, but the carcinoma has again appeared in the breast.

The Fallopian tube prolapsed in three cases in which it had not been removed, and during the healing of the vaginal incision was caught so that it protruded into the vagina, greatly reddened and swollen. These cases upon examination made us suspicious that there had been a return of the disease, but the microscope proved their true character. Two of these patients are still in good health; the third died from a recurrence.

Another patient returned a year after operation with a note from her physician stating that he had discovered a mass in the vaginal vault which he believed to be of a malignant character. There had been associated with it a profuse vaginal discharge, and occasionally some bleeding. This mass proved to be a large silk ligature which had been left on the broad ligament and had become imbedded in the granulation tissue. Since the removal of the ligature the patient has been absolutely well.

The most interesting of these cases is a patient who presented herself three months after vaginal hysterectomy for carcinoma of the cervix, with a fungus-like growth arising in the vaginal vault along the scar resulting from the operation. Dr. Kelly carefully dissected the mass out and thoroughly cauterized the surrounding area. This occurred two and a half years ago, and the patient at present continues to be in excellent health.

Local return occurred in all the cases terminating fatally, but in none could we elicit any history of metastatic growths in other parts of the body. In the case above cited where the patient is still living, it seems probable that there is a metastasis to the neck and axilla.

Pneumonia was the cause of death in one instance thirteen months after the operation; here there was an extensive malignant ulcerated area in the vaginal vault, which had appeared a few months after she left our care.

Adeno-carcinoma, body of the uterus ..... 9 cases.
Carcinoma, cervix..... ..... 38 "

Results of hysterectomy for carcinoma of the body:

Patients still living	7 = 77	per cent.
" died recurrence, operation incomplete	1 = 11	"
" died primary effect of operation	1 = 11	"

No. cases still living, 5 yrs. elapsed	1
" " " 3 " "	2
" " " 2 " "	2
" " " 1 " "	2

The uterus was removed by supravaginal amputation in three cases. An ordinary vaginal hysterectomy was performed in the remaining six. Recurrence has taken place therefore only in the case where the operation was not completed.

In some of the cases the growth had penetrated the walls of the uterus so that it could be seen just beneath the peritoneal covering, and yet no evidence of involvement of the lymphatics or the parametrium could be detected. The three cases in which the cervix was left have proved as satisfactory as those in which the whole uterus was removed.

Results in hysterectomy for carcinoma of the cervix:

Patients died from primary effect of the operation	4 = 10	per cent.
Patients still living	14 = 36	"
Patients died with recurrence	15 = 38	"
Patients not heard from	4 = 10	"

Operations over 4 years ago and patients still living	3
" 3 " " "	4
" 2 " " "	4
" 1 " " "	3

The uterus was removed in four cases by the combined method. One of these died a few days after the operation from ligation of the ureter, and another in which the disease was associated with pregnancy died several months after operation with a recurrence in the vagina. The remaining two are reported as free from any suspicious signs.

Vaginal hysterectomy was employed in thirty-four cases, three of which died from the operation, and fourteen afterwards from the original disease.

The four cases not accounted for up to the present time were considered at the time of operation favorable for cure. Two of them I have since seen, one two years after operation

and the other one year, and both at that time showed no evidence of ulceration or induration by vaginal examination.

The fourteen women who are still living do not give symptoms pointing to metastasis or local recurrence, except the one mentioned with the nodules in the neck and axillæ. This single case proves that even after a lapse of four years we are not justified in claiming a cure. We cannot at present definitely fix a period of years beyond which a patient must live in order to pass the danger limit. Fritsch, Schauta, Hofmeier, Leopold and Boldt have followed their cases from five to seven years after the removal of the uterus, and even as late as seven years there continues to be a fall in the percent. of cures. Olshausen, Schauta and Fritsch report over 47 per cent. without recurrence after a lapse of two years. It is a striking fact that in our cases thus far, all recurrences but one have taken place within eighteen months.*

We have not attempted to show the relationship of the different forms of carcinoma to their tendency to recurrence, but the form of disease has undoubtedly a great influence upon the ultimate results. This point is clearly demonstrated by our experience, as in not a single one of the seven cases in which the uterus was completely removed for adeno-carcinoma of the body has a recurrence been noted; while in the thirty-eight cases where the cervix was diseased, fifteen have died with a return of the trouble.†

Metastases were found only once beyond the pelvic and retroperitoneal glands, in ten autopsies performed in the pathological laboratory upon patients in whom carcinoma of the uterus was present. This was an adeno-carcinoma of the body of the uterus, and a few nodules were found in the liver. In four others there were carcinomatous deposits in the pelvic and retroperitoneal glands.

These observations, in conjunction with the fact that by far the greater majority die subsequent to hysterectomy with a continuation of the growth in the vagina and parametrium, prove the possibility of complete eradication.

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*Statistics obtained from Winter, Berliner klin. Wochenschrift, 1891, No. 33, and Ztsch. f. Geburtsh. u. Gyn., Vol. XXIV, p. 135; also Boldt, American Jour. Obstet., Vol. 26, p. 517.

†Kinkenburg (Ztsch. f. Geburtsh. u. Gyn., Vol. 23) and Hofmeier (same journal, Vol. 32) have made similar observations.

Statistics of Forty-seven Cases of Carcinoma.

Name.	Seat of Disease.	Operation.	Date of Operation.	Date of Death.	Remote Results.
Mrs. L.	Cervix. Fungating mass filling upper portion of vagina.	Vaginal hysterectomy.	11-21-89	8-30-91	Local return.
E. C.	Body.	Vaginal hysterectomy. Uterus ruptured during removal.	1-2-90		Patient continues to be in excellent health.
C. G.	Cervix. Previous operation, high amputation.	Vaginal hysterectomy. First use of ureteral catheter.	6-18-90		Patient last examined 10-2-92. No sign of return.
D. J. B.	Body.	Vaginal hysterectomy. Bladder opened.	8-28-90	Five days after operation.	Death, peritonitis.
Mrs. H.	Cervix. Extensive lateral infiltration.	Vaginal hysterectomy.	3-28-91	Five months after operation.	Local return in vaginal vault.
M. W.	Cervix. Fungating mass in vagina.	Vaginal hysterectomy.	4-4-91		Last examination 10-2-95. No evidence of return.
J. B.	Portio vag. Disease extends 1 cm. on vaginal walls.	Vaginal hysterectomy.	5-4-91		Discharging glands in neck and axillæ. No local return, 8-15-95.
E. C.	Cervix. Disease circumscribed.	Vaginal hysterectomy.	7-1-91		Last seen 8-9-93. In perfect condition.
M. A. B.	Cervix. Fungating mass in vagina. Extensive lateral involvement.	Vaginal hysterectomy.	11-9-91	9-5-92	Local return in few months.
Dr. Miller's Patient.	Cervix.	Vaginal hysterectomy.	4-22-91		Excellent health. No evidence of return, 9-11-95.
Mrs. W.	Cervix. Lateral involvement. Myoma at fundus.	Vaginal hysterectomy.	12-23-91	1-1-93	Local return.
K. K.	Cervix. Extensive lateral infiltration.	Vaginal and abdominal.	1-30-92	Died from operation. Ligation of ureters.	
Mrs. M.	Cervix.	Vaginal hysterectomy. Cauterization of left pedicle on account of infiltrated area. Prognosis bad.	2-18-92		Patient in excellent health. No local return, 9-15-95.
Miss B.	Body.	Incomplete vaginal hysterectomy on account of extensive disease and infiltration of fundus.	2-23-92	About three months after operation.	Disease had broken through uterine wall and spread out on intestines.
Mrs. G.	Cervix.	Vaginal hysterectomy.	8-3-92		9-28-92. Portion of tube in incision removed with cautery. 9-1-95, patient in good health.

F. C.	Cervix. Two nodules found in uterus entirely separate from cervix.	Vaginal hysterectomy. Bladder perforated and afterwards closed with good result. Bad prognosis.	11-27-92	10-18-93	12-12-95. Prolapsed tube excised. Local return.
C. T.	Cervix. Complicated by 4 months' pregnancy.	Vaginal and abdominal.	11-10-92	5-1-94	Patient died in Hospital. Local return with perforation of bladder and rectum.
R. A.	Body. Associated with myoma.	Supra-vaginal amputation. Cervical canal cauterized.	11-28-92		Patient in good health, 9-13-95.
Z M. S.	Cervix. Fungating mass in vagina.	Vaginal hysterectomy.	12-17-92		5-13-93. Ulcerated area in vaginal vault dissected out and cauterized.—9-31-95. No sign of local return.
A. E.	Cervix. Fungating mass filling vagina. Invasion of vaginal mucosa.	Vaginal hysterectomy.	6-25-93		Unable to find patient.
Mrs. D.	Cervix.	Vaginal hysterectomy.	3-6-93		Patient continues in good health, 10-1-95.
Mrs. C.	Cervix.	Vaginal hysterectomy.	4-12-93		Unable to obtain information regarding patient.
Mrs. G.	Cervix.	Vaginal hysterectomy. Impossible to remove all disease laterally.	4-18-93	7-1-93	Local return.
E. B.	Body.	Vaginal hysterectomy. Uterus ruptured in removing.	5-10-93		Breast removed for cancer about one year after hysterectomy. 10-1-95, no return in vagina, but patient under treatment for some recurrence in breast.
Mrs. S.	Cervix.	Vaginal hysterectomy.	8-30-92	Died one year later.	Local return.
S. L.	Cervix. Vagina filled with fungating mass, and infiltration for 2 cm. about cervix.	Vaginal hysterectomy. Bladder perforated. Transfusion of salt solution in radial artery.	10-10-93	8-15-94	Local return.
P. H.	Cervix. Circumscribed nodule.	Vaginal hysterectomy.	11-8-93		Last heard from 8-20-95. Doubtful return in cicatrix.
L. W.	Body. Associated with myoma.	Supra-vaginal amputation.	2-15-93		Continues in excellent health, 10-5-95.
C. S.	Cervix.	Vaginal hysterectomy.	11-25-93	Died from operation. Peritonitis.	
M. F. W.	Portio vaginalis. Disseminated nodules in vaginal mucosa.	Vaginal hysterectomy. Whole upper third of vaginal mucosa removed.	11-25-93	2-1-95	Death from pneumonia. Local return.
M. G.	Body.	Vaginal hysterectomy.	12-4-93		Continues to be in excellent health, 8-17-95.
M. D.	Cervix. Lateral infiltration so far advanced that a bad prognosis given.	Vaginal hysterectomy. Bougie in ureter.	12-11-93		No evidence of local return. Patient in excellent health, 9-13-95.

Name.	Seat of Disease.	Operation.	Date of Operation.	Date of Death.	Remote Results.
A. R.	Cervix. Post. lip only involved.	Vaginal hysterectomy.	1-31-94		Sent by physician for examination on account of suspicious nodule in scar, which proved to be silk ligature imbedded in granulation tissue. No evidence of return of disease, 9-13-95.
L W.	Cervix. Fungating mass filling upper portion of vagina. Mucosa of vagina not diseased.	Vaginal hysterectomy. Bougie passed into ureter.	2-15-94	About nine months after operation.	Local return.
N. C. J.	Cervix. Uterus torn off above internal os. Lateral infiltration. Bad prognosis.	Vaginal hysterectomy.	2-17-94	6-3-94	Local return.
E. O.	Cervix. Lips entirely disappeared. Disease far advanced laterally.	Vaginal hysterectomy. Uterus ruptured during removal.	3-3-94	11-5-94	Local return.
S. B. H.	Cervix. Nodules felt beneath vaginal mucosa. Prognosis bad.	Vaginal hysterectomy. Bougie in ureter. Pus cavity beside uterus in abdomen.	3-5-94	Five months after operation.	Local return. Death sudden.
M. E.	Cervix. Vagina and parametrium involved. Bad prognosis.	Vaginal hysterectomy. Nodule in broad lig. dissected out.	3-5-94	Eight months after operation.	Local return.
M. H.	Cervix.	Vaginal hysterectomy.	3-7-94	Died from operation.	Death due to peritonitis.
M. Q.	Cervix.	Vaginal hysterectomy.	8-21-94	Died from operation.	Death due to peritonitis.
B. Z.	Portio vaginalis. Disease had encroached upon vaginal walls 2 cm.	Vaginal hysterectomy. Ureter cut.	8-22-94		Ureter dissected out and sutured into incision in bladder. 8-15-95, no sign of return. No urinary difficulty.
M. P.	Body.	Abdominal hysterectomy.	7-25-94		Perfect health when last seen, 8-18-95.
A. R.	Cervix.	Combined operation, vaginal and abdominal.	8-8-94		No local induration or ulceration. Good health, 8-16-95.
S. A.	Cervix. Converted into shell.	Combined operation, vaginal and abdominal.	6-5-94		Doctor writes that patient is in good condition, with no sign of recurrence of disease, 10-16-95.
K. A.	Body.	Supra-vaginal amputation. Cervix cupped out.	6-20-94		No evidence of recurrence, 9-12-95.
S. C.	Cervix.	Vaginal hysterectomy. Tube caught in vaginal incision.	2-17-94		Patient in good health and without symptoms pointing to return, 9-17-95.
Mrs. W.	Cervix.	Vaginal hysterectomy.	11-15-91	Died about eighteen months after operation.	Carcinoma of breast removed about one year after the vaginal hysterectomy. Patient died of heart lesion.